ABSTRACT

An adaptive pre-equalizer (15) is disclosed to compensate amplitude ripples in a low cost transmitter pass-band filter (35, 200). A filtered-x LMS algorithm is proposed to calculate the equalizer coefficients (72). To this purpose, the modulated RF signal is demodulated at the transmitter and subtracted from a filtered version of the original base band signal. The impulse response of the low-cost transmit filter (35, 200) is approximated by a delay (73). The disclosure may be applied to direct conversion or heterodyne transmitters using e.g. OFDM.